

Thin Ice



the GM Freeze Campaign newsletter

Issue 24, January 2012

Happy (non-GM) New Year

We thought we'd kick off the New Year with some updates on some of the most recent non-GM success stories.

Back in January DuPont announced a new non-GM maize variety for "water-limited" environments with a 5% average yield advantage over leading commercial hybrids. Reminding all that no single crop can survive all droughts, Pioneer's President said, "Drought is a complex issue and can affect crops differently depending on the geography and stress factors of each environment. There is no single gene or silver bullet solution for the drought complex."

In May The International Crop Research Institute for Semi-Arid Tropics released 735 non-GM crop varieties more resistant to drought developed using germplasm and breeding materials in 78 countries. The varieties include sorghum: 242 varieties, pearl millet: 163 varieties, groundnut: 145 varieties, chickpea: 120 varieties, and pigeon pea: 65 varieties.

In September Bangladeshi scientists announced a new non-GM rice variety

capable of producing three crops per plant per year, instead of the usual one. When coupled with improved cultivation techniques the new rice also quadruples yields while cutting greenhouse gas emissions, ploughing,

Swiss researchers announced two new non-GM soya varieties to help the country maintain its non-GM status

costs and reducing the amount of fertiliser needed. The variety is also more resilient in floods.

In October Swiss researchers announced two new non-GM soya varieties to help the country maintain its non-GM status amid increasing contraction of the soya seed market into GM varieties. One variety has improved flavour and the other a high

protein content. The developments aim to reduce EU dependence on imported soya protein. The Swiss Federal Agricultural Department noted that developing new varieties without GM also produces seeds particularly suited to the country's growing conditions.

In November researchers in Australia announced a potential breakthrough in fighting crown rot in wheat, which costs around Aus\$79 million a year in yield losses by claiming around 2-3% of the crop. The disease can reduce individual crops by as much as 10% in dry seasons. The new non-GM parent lines are now being crossed by commercial plant breeders with the aim of developing varieties for sale in around 10 years. A spokesperson said, "Our research has involved using old-fashioned techniques combined with modern understanding to identify how genes are passed on by the parent plants resulting in disease-resistant plants."

For more of this good news see www.gmfreeze.org/why-freeze/unnecessary-non-gm-works/.



GET ACTIVE

GM Wheat? NO THANKS!

Visit www.gmfreeze.org/gmwheatnothanks now to see all the background and action advice you need about the GM wheat trial due to be planted in Hertfordshire this Spring. There are new leaflets, too, for businesses and the public. Help us say "NO THANKS!"

INTERNATIONAL ROUNDUP

Africa

South Africa

Campaigners celebrated the October confirmation by the Competition Tribunal of a 2010 Competition Commission decision to prohibit a merger between multinational seed company Pioneer Hi Bred and South Africa's largest seed company Pannar Seed. The Director of the African Centre for Biosafety said, "The prohibition is a victory for smallholder farmers in South Africa and all those who advocate for a more equitable food system. The Tribunal's decision will create much needed breathing space for the development of an appropriate seed system for South Africa that responds to the needs of smallholder and resource-poor farmers rather than those of profit-seeking multinational corporations. Government must stop pushing for the further propagation of the industrial agricultural model."

Americas

GM salmon update (see TI 19, 20, 23):

While the dossier on AquaBounty's AquaAdvantage GM salmon continues to await a White House decision, a 2009 memo revealed federal officials knew AquaBounty's Canadian rearing facility was infested with the highly contagious Infectious Salmon Anaemia (ISA) virus. ISA was responsible for the recent near collapse of the Chilean aquaculture industry, costing some US\$2 billion and hundreds of jobs, and is a serious threat to wild fish populations. Eleven organisations told the FDA the new information calls into question the reliability of AquaBounty's data.

In October a national consumer advocacy organisation revealed AquaBounty has received US\$1.95 million in federal research tax-funded grants since 2003 on top of the previous US\$494,000 grant to study technologies to render the GM fish sterile.

Also in October regulator Environment Canada admitted it is not confident it can fully protect wild fish stocks if the GM salmon hatchery is approved. Canadian approval is needed in addition to US approval as

the egg production facility is within their jurisdiction. The Government has yet to decide if the scope of its work should only look at the risks posed by GM salmon egg production and transport or if Canada also has a duty to include wider potential effects GE fish could have in its deliberations. Lucy Sharratt of Canadian Biotechnology Action Network said, "If they do find that there's a risk from grow-out in Panama, then they actually have to deal with that risk and this is the question: If Environment Canada cannot monitor and enforce safety in Panama, then we cannot approve the GE fish egg production here ... We don't want to be the source of global risk to wild salmon stocks."

Internal records from the US Department of Fisheries and Oceans, released under freedom of information laws, report departmental scientists saying, "There is a potential risk of fish migrating back to affect Canadian fish stocks."

Meanwhile Alaskan Senators filed two bills: one to ban all interstate commerce in the GM salmon and a second to prevent the FDA from spending any money to approve the GM salmon application for deregulation.

In November SalmoBreed, a Norwegian salmon egg producer, contradicted AquaBounty's claims to the technology saying their conventional breeding methods are just as effective, including at producing fast-growing fish. The company's CEO said, "We can demonstrate that fish reared from SalmoBreed eggs selected for strong growth more than catch up if you look at growth over the full cycle. We wonder where AquaBounty can go to provide yet faster growth through to harvest. Further genetic engineering?... Moving to GM to find an 'advantage' which isn't really there looks to us like a solution searching for a problem."

Argentina

A 2008 study showed that during the previous decade rising international prices encouraged farmers to plant more soya, displacing an increasing amount of the existing commercial maize production further into northern Argentina. This has, in turn, had the

knock-on effect of increasing the area of land permanently affected by the crop pest the corn leafhopper (*D. maidis*) and the crop diseases it spreads.

The spread of industrial soya also has serious consequences for local people. In November 23-year-old farmer Cristian Ferreyra was shot and killed and another man seriously injured in an incident related to land grabbing. The two gunmen were allegedly hired by a local landowner.

Ferreyra was part of a peasant organisation of some 8,000 farming families that has been fighting land grabs to grow industrial soya for more than 20 years, advocating instead food sovereignty based on food self-sufficiency rather than reliance on export agriculture. Ferreyra helped guard land claimed by the peasant farmers against expropriation by businessmen, who are said to have stepped up attempts to evict families in the area from land they have farmed for years. A statement from the National Indigenous Peasant Movement said, "This violence comes from the agrobusiness model. The dead, the wounded, the evictions are all from the peasant communities ... These models of production are being questioned, and as Argentine men and women we need to understand that on the one side is life, on the other death. One side signifies work and dignity, the other profits for the few. One side means national food sovereignty, the other, domination by transnational companies."

Mexico

In October researchers confirmed the presence of GM cotton transgenes in 66 of 270 wild cotton plants (*Gossypium hirsutum*) they assessed. This is the first time outcrossing to wild relatives has been confirmed in cotton. In one case the contaminated seed came from a plant 755 kilometres from the nearest GM cotton plantation. Other cases showed the contamination is older than one generation showing the transgene has established itself in wild populations – the wild plants carried several different transgenes, indicating several crosses had occurred. This impacts on

the genetic diversity of wild cotton available to breed new varieties and introduce new traits – a critical issue since 95% of all cultivated cotton derives from domesticated wild Mexican varieties. The lead author of the study said, “It is urgent to stop the flow of genes between cultivated and wild plants,” adding, “Gene flow can reduce the differentiation between populations, but we have no idea what impact that might have.”

Peru

In November Congress announced “overwhelming” approval a 10-year moratorium on GMOs. (see TI 22) The move, designed to protect the country’s biodiversity, prohibits import for cultivation or local development of GM seeds, livestock, and fish (with the exception of research in closed facilities). Congress had approved a similar 10-year moratorium in June, but outgoing pro-GM President Alan Garcia did not ratify it. The head of Peru’s Consumer Agency said the length of the moratorium will enable the country to learn from emerging scientific studies on GMOs. A spokesperson for The National Convention of Peruvian Agriculture said, “Now we have to tap the potential of Peru’s diverse agriculture, food and tourism, as part of a national biosafety work and ensure agricultural production to achieve food security.”

US

In November reports emerged that Monsanto shareholder Harrington Investments Inc. (HII, a socially responsible investment advisory firm) had submitted a “resolution requesting Monsanto publish a study on the financial risks and impacts of its genetically modified products” to be voted on at the company’s January shareholder meeting. HII cited the multi-million dollars losses to GM companies in legal settlements (presumably references to the GM rice contamination claims) “that may have an adverse impact on Monsanto shareholder value” in its deliberations as to whether Monsanto can continue

investment option for the firm’s clients as it fails to pass the company’s rigorous social and environmental screening. In 2007 HII unsuccessfully submitted a binding bylaw amendment attempting to erode Monsanto’s ability to protect directors after they violated their legal or ethical duties in cases that negatively impacted the environment, public health, or human rights. Monsanto is expected to oppose the request.

The move came hot on the heels of Monsanto’s October announcement that it will revise downward by as much as 10 cents/share its financial results for the past three years as a result of a US Securities and Exchange Commission investigation into the company’s use of cash “incentives” to persuade distributors to buy Roundup. (see GM in The Dock at www.gmfreeze.org for more)

Also in October hundreds of protestors ended a 504 kilometre march from the UN in New York with a rally in Washington DC demanding labels on all GM foods. One farmer at the rally said, “The argument that there is no health risk is not valid at all. There’s been no peer-reviewed research, other than by the dairy industry. So these products are untested, and the public becomes the guinea pigs.”

Two new lawsuits were lodged recently: one in November by a coalition of organisations against the US Fish & Wildlife service over GM cultivation in national wildlife refuges and a second class action suit in December alleging claims on highly processed foods to be “all natural” are misleading because they contain GM ingredients. Watch this space for developments.

In November officials cut predicted maize yield to an 8 year low despite USDA figures showing 88% of the crop is GM and supposed to “feed the world”.

Australasia

Australia

In November a Western Australian Councillor called for new legislation to protect farmers from GM contamination

after another incident (see TI 20, 21 and 23) in which hail knocked 100 tons of GM canola seed (oilseed rape) to the ground. The seed then washed downhill and germinated in neighbouring GM-free farms and roadside verges. When questioned about clean up the Minister responsible said farmers should “liaise with each other to work out the best way to manage any GM canola that may have moved”. Western Australia farmers are still struggling to find a market for their crop, and there in November was a AU\$40 price premium for non-GM canola.

Asia

China

In September Chinese press reported the Government’s “Modern Agricultural Crop Seed Industry Development Plan (2011-2020)” suspended commercialisation of GM wheat and rice for at least 5-10 years. Heated scientific debate about commercialising GM staple crops followed the granting of safety certificates, which do not include permission to cultivate, being issues in 2009 after a five year biosafety assessment. A scientist known as “father of hybrid rice” said, “One of the major features of GM crops is their ability to resist insects, but even scientists do not know whether such an ability in these crops will have any effect on human beings.” Perhaps learning from Europe’s mistakes, the Chief Biodiversity Scientist of the Ministry of Environmental Protection who works at the Nanjing Research Institute of Environmental Sciences was reported to say Chinese authorities need to set up effective risk-evaluation and management mechanisms before commercializing GM products, and that since some GM seeds are already in circulation, more needs to be done to supervise and manage GM technology.

India

In December a farmers’ advocacy group said official reports show farmers in dry areas who planted Bt cotton on 4 million hectares are likely to loose about

“Our customers in Europe want sustainable canola and they also want non-GM canola.”

Sally Porter, Cooperative Bulk Handling Quality and Technical Manager, Australia

INTERNATIONAL ROUNDUP

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£1,205,000,000 as their crops fail. A bailout package has been announced - the second in five years. A spokesperson for the group said, "The ground reality contradicts the claim of Central Institute for Cotton Research that cultivation of genetically modified (GM) variety, Bt cotton, has helped in reducing the use of pesticides and insecticides."

Instead three years of crop failures coupled with spiralling seed and insecticide costs have pushed some 10 million farmers dependent on cotton into deep debt, and the wave of suicides continues. Ministry of Agriculture figures show cotton yields in Tamil Nadu are down to 272.17 kg/hectare from the 290.17 kg/hectare in the six years before Bt was introduced. Overall Bt cotton makes up 93% of the total crop, and the October harvest is estimated to be a five-year low. One farmer, who converted to Bt cotton in 2005/6 said, "I sowed all my four acres with the 6,918 variety seed that they guaranteed would give huge profits. The plant grew well as we devotedly followed every instruction. But the crop never flowered. Zero yield pushed the entire belt of 2,500 hectares where farmers like me had cultivated Bt cotton, into distress."

In December the scandal over "indigenous" Bt cotton varieties escalated as a second variety, developed with Government money and claimed to be a local breakthrough, was revealed to be based on proprietary technology owned by Monsanto. The lead scientist on the project also sits on

India's troubled biotech regulatory body, sparking allegations of conflict of interest. One critic said, "This puts a question mark on whether capabilities to produce 'indigenous' GM crops exist, not that we want these."

Pakistan

In December media debate about how to improve cotton yields highlighted USDA data showing yields for Pakistan and Australia have been steady over ten years, despite introducing Bt varieties in 2005 and 1996 respectively. The Islamabad Weekly Pulse said, "Experts claim that an interesting factor is that despite having the latest Bollgard-2 Bt cotton technology, India is still behind Pakistan in per acre yield, which shows that Pakistan's local cotton seed varieties are superior."

EU

In October BASF applied for authorisation for a second GM potato, Fortuna (said to be resistant to late blight), covering cultivation as well as human and animal consumption (see TI 17, 18, 19 and 21). In November Corporate Europe Observatory (CEO) exposed conflicts of interest for 12 of the 21 members of EFSA's GMO panel that approved BASF's other GM potato, Amflora. Demanding independence in GM assessments, a CEO spokesperson said, "Many EFSA experts on the panel had close links to the biotech industry. Their advice downplaying the relevance of two antibiotics was taken straight from industry and ignored global expert

medical advice."

In November the EU announced requirements to screen all Chinese rice imports for the GM Bt63 and other unauthorised traits. The Bt63 contamination dates back to 2006. EU Member States are required to test all imports at ports for GM presence, return contaminated batches and send results to the Commission as Chinese efforts to stem the contamination have failed.

Also in November the European Patent Office referred to the Enlarged Board of Appeal a decision on a new patent on a conventional tomato with reduced water content aimed at food processing. The patent had been granted to the Israeli Ministry of Agriculture, but Unilver challenged it to protect its own interests. In December 2010 Enlarged Board of Appeal decided traditional breeding methods in general cannot be patented, but the results of that breeding remained patentable.

France

In November the Council of State annulled a ban on cultivating Monsanto's MON810 maize, following a High Court ruling overturning the ban on legal grounds. That decision flowed from a September European Court of Justice ruling the ban could not be justified on the scientific grounds given. The Agriculture and Ecology Ministries continue to oppose MON810 and a statement said the Government is "studying, as of now, the means to attain this objective" and is expected to present new grounds for a ban to the Commission shortly. Five other EU Member States maintain bans on MON810.

Spain

A report published in November by the Institute of Environmental Assessment and Water Research showed glyphosate was found in 41% of 140 groundwater samples analysed. The study followed a US Geological Survey revealing that glyphosate and its breakdown product are frequently found in rainfall and rivers in the Mississippi Basin. Both studies undermine the claim by Monsanto that glyphosate cannot leach into water because it is bound onto soil particles.

The GM Freeze Campaign is calling on the Government for a Freeze on:

- The growing of genetically modified plants and the production of genetically modified farm animals for any commercial purpose.
- Imports of genetically modified foods, plants, farm crops and farm animals, and produce from genetically modified plants and animals.
- The patenting of genetic resources for food and farm crops.

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